Practice: 512 - Forage and Biomass Planting

Scenario: #1 - Native Perennial Grasses, 1 species

Scenario Description:

Suitable species are established to improve forage quality and quantity and reduce soil erosion on cropland, hayland, pasture, and/or biomass production. Used for either conventional or no-till seeding of perennial native warm season grasses for pasture, hayland, and wildlife openings

Before Situation:

Poorly managed/degraded pasture land or cropland being converted to pasture and/or hay.

After Situation:

Suitable species are established to improve forage quality and quantity and reduce soil erosion on cropland, hayland, pasture, and/or biomass production.

Scenario Feature Measure: Acres of Forage and Biomass Planting

Scenario Unit: Acre

Scenario Typical Size: 80

Scenario Cost: $8,236.00 **Scenario Cost/Unit:** $102.95

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
Tillage, Light	945	Includes light disking (tandem) or field cultivator. Includes equipment, power unit and labor costs.	Acre	$10.98	80	$878.40
Seeding Operation, No Till/Grass Drill	960	No Till drill or grass drill for seeding. Includes equipment, power unit and labor costs.	Acre	$21.04	80	$1,683.20
Materials						
One Species, Warm Season, Native Perennial Grass	2322	Native, warm season perennial grass. Includes material and shipping only.	Acre	$70.93	80	$5,674.40

Practice: 512 - Forage and Biomass Planting

Scenario: #2 - Native Perennial Grasses, 1 species, forgone income

Scenario Description:

Establish or reseed adapted perennial native warm season grasses to improve or maintain livestock/wildlife nutrition and health, extend the length of the grazing season, and provide soil cover to reduce erosion. Used for either conventional or no-till seeding of perennial native warm season grasses for pasture, hayland, and wildlife openings. This practice may be utilized for organic or regular production. This scenario includes seed, equipment and labor for seedbed prep, tillage, and seeding. The land being seeded was previously cropland with a typical rotation of wheat and corn.

Before Situation:

Cropland being converted to pasture and/or hay.

After Situation:

Suitable species are established to improve forage quality and quantity and reduce soil erosion on cropland ,hayland, pasture, and/or biomass production.

Scenario Feature Measure: Acres of Forage and Biomass Planting

Scenario Unit: Acre

Scenario Typical Size: 80

Scenario Cost: $10,038.40 **Scenario Cost/Unit:** $125.48

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
Tillage, Light	945	Includes light disking (tandem) or field cultivator. Includes equipment, power unit and labor costs.	Acre	$10.98	80	$878.40
Seeding Operation, No Till/Grass Drill	960	No Till drill or grass drill for seeding. Includes equipment, power unit and labor costs.	Acre	$21.04	80	$1,683.20
Foregone Income						
FI, Grazing AUMs	2079	Grazing is the Primary Land Use	AUM	$15.02	120	$1,802.40
Materials						
One Species, Warm Season, Native Perennial Grass	2322	Native, warm season perennial grass. Includes material and shipping only.	Acre	$70.93	80	$5,674.40

Practice: 512 - Forage and Biomass Planting

Scenario: #3 - Native Perennial Grasses, multiple species

Scenario Description:

Establish or reseed adapted perennial native warm season grasses to improve or maintain livestock/wildlife nutrition and health, extend the length of the grazing season, and provide soil cover to reduce erosion. Used for either conventional or no-till seeding of perennial native warm season grasses for pasture, hayland, and wildlife openings. This practice may be utilized for organic or regular production. This scenario includes seed, equipment and labor for seedbed prep, tillage, and seeding.

Before Situation:

Poorly managed/degraded pasture land or cropland being converted to pasture and/or hay.

After Situation:

Suitable species are established to improve forage quality and quantity and reduce soil erosion on cropland, hayland, pasture, and/or biomass production.

Scenario Feature Measure: Acres of Forage and Biomass Planting

Scenario Unit: Acre

Scenario Typical Size: 80

Scenario Cost: $20,240.00 **Scenario Cost/Unit:** $253.00

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
Tillage, Light	945	Includes light disking (tandem) or field cultivator. Includes equipment, power unit and labor costs.	Acre	$10.98	80	$878.40
Seeding Operation, No Till/Grass Drill	960	No Till drill or grass drill for seeding. Includes equipment, power unit and labor costs.	Acre	$21.04	80	$1,683.20
Materials						
Three plus Species Mix, Warm Season, Native Perennial	2327	Native, warm season perennial grass. Includes material and shipping only.	Acre	$220.98	80	$17,678.40

Practice: 512 - Forage and Biomass Planting

Scenario: #4 - Native Perennial Grasses, multiple species, forgone income

Scenario Description:

Establish or reseed adapted perennial native warm season grasses to improve or maintain livestock/wildlife nutrition and health, extend the length of the grazing season, and provide soil cover to reduce erosion. Used for either conventional or no-till seeding of perennial native warm season grasses for pasture, hayland, and wildlife openings. This practice may be utilized for organic or regular production. This scenario includes seed, equipment and labor for seedbed prep, tillage, and seeding. The land being seeded was previously cropland with a typical rotation of wheat and corn.

Before Situation:

Cropland being converted to pasture and/or hay.

After Situation:

Suitable species are established to improve forage quality and quantity and reduce soil erosion on cropland, hayland, pasture, and/or biomass production.

Scenario Feature Measure: Acres of Forage and Biomass Planting

Scenario Unit: Acre

Scenario Typical Size: 80

Scenario Cost: $22,042.40 **Scenario Cost/Unit:** $275.53

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
Tillage, Light	945	Includes light disking (tandem) or field cultivator. Includes equipment, power unit and labor costs.	Acre	$10.98	80	$878.40
Seeding Operation, No Till/Grass Drill	960	No Till drill or grass drill for seeding. Includes equipment, power unit and labor costs.	Acre	$21.04	80	$1,683.20
Foregone Income						
FI, Grazing AUMs	2079	Grazing is the Primary Land Use	AUM	$15.02	120	$1,802.40
Materials						
Three plus Species Mix, Warm Season, Native Perennial	2327	Native, warm season perennial grass. Includes material and shipping only.	Acre	$220.98	80	$17,678.40

Practice: 512 - Forage and Biomass Planting

Scenario: #5 - Introduced Perennial Grasses, legume

Scenario Description:

Establish or reseed adapted perennial introduced grasses and legumes to improve or maintain livestock/wildlife nutrition and health, extend the length of the grazing season, and provide soil cover to reduce erosion. Used for either conventional or no-till seeding of perennial introduced grasses for pasture, hayland, and wildlife openings. This practice may be utilized for organic or regular production. This scenario includes seed, equipment and labor for seedbed prep, tillage, and seeding.

Before Situation:

Poor or nonexistent stand of grass species. Resource concerns may include undesireable plant productivity and health, inadequate feed and forage for livestock, soil erosion and soil quality.

After Situation:

Suitable species are established to improve forage quality and quantity and reduce soil erosion on cropland, hayland, pasture, and/or biomass production.

Scenario Feature Measure: Acres of Forage and Biomass Planting

Scenario Unit: Acre

Scenario Typical Size: 60

Scenario Cost: $3,205.80 **Scenario Cost/Unit:** $53.43

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
Tillage, Light	945	Includes light disking (tandem) or field cultivator. Includes equipment, power unit and labor costs.	Acre	$10.98	60	$658.80
Seeding Operation, No Till/Grass Drill	960	No Till drill or grass drill for seeding. Includes equipment, power unit and labor costs.	Acre	$21.04	60	$1,262.40
Materials						
Four Species Mix, Cool Season, Introduced Perennial (2 grasses, 2 legumes)	2319	Cool season, introduced grass and legume mix. Includes material and shipping only.	Acre	$21.41	60	$1,284.60

Practice: 512 - Forage and Biomass Planting

Scenario: #6 - Introduced Perennial Grasses, legume, foregone income

Scenario Description:

Establish or reseed adapted perennial introduced grasses and legumes to improve or maintain livestock/wildlife nutrition and health, extend the length of the grazing season, and provide soil cover to reduce erosion. Used for either conventional or no-till seeding of perennial introduced grasses for pasture, hayland, and wildlife openings. This practice may be utilized for organic or regular production. This scenario includes seed, equipment and labor for seedbed prep, tillage, and seeding. The land being seeded was previously cropland with a typical rotation of wheat and corn.

Before Situation:

Cropland being converted to grass. Resource concerns may include undesireable plant productivity and health, inadequate feed and forage for livestock, soil erosion and soil quality.

After Situation:

Suitable species are established to improve forage quality and quantity and reduce soil erosion on cropland, hayland, pasture, and/or biomass production.

Scenario Feature Measure: Acres of Forage and Biomass Planting

Scenario Unit: Acre

Scenario Typical Size: 60

Scenario Cost: $4,557.60 **Scenario Cost/Unit:** $75.96

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
Seeding Operation, No Till/Grass Drill	960	No Till drill or grass drill for seeding. Includes equipment, power unit and labor costs.	Acre	$21.04	60	$1,262.40
Tillage, Light	945	Includes light disking (tandem) or field cultivator. Includes equipment, power unit and labor costs.	Acre	$10.98	60	$658.80
Foregone Income						
FI, Grazing AUMs	2079	Grazing is the Primary Land Use	AUM	$15.02	90	$1,351.80
Materials						
Four Species Mix, Cool Season, Introduced Perennial (2 grasses, 2 legumes)	2319	Cool season, introduced grass and legume mix. Includes material and shipping only.	Acre	$21.41	60	$1,284.60

Practice: 512 - Forage and Biomass Planting

Scenario: #7 - Introduced Perennial and Native Grass Mix

Scenario Description:

Establish or reseed adapted introduced grasses and at least one native species to improve or maintain livestock/wildlife nutrition and health, extend the length of the grazing season, and provide soil cover to reduce erosion. Used for either conventional or no-till seeding of grasses for pasture, hayland, and wildlife openings. Native grass species, which have a significantly greater cost than introduced species, comprise one third of the grass mixture. This practice may be utilized for organic or regular production. This scenario includes seed, equipment and labor for seedbed prep, tillage, and seeding.

Before Situation:

Existing stand of perennial grasses, a monoculture, or no grasses present. Resource concerns may include undesireable plant productivity and health, inadequate feed and forage for livestock, soil erosion and soil quality.

After Situation:

Suitable species are established to improve forage quality and quantity and reduce soil erosion on cropland, hayland, pasture, and/or biomass production.

Scenario Feature Measure: Acres of Forage and Biomass Planting

Scenario Unit: Acre

Scenario Typical Size: 80

Scenario Cost: $6,255.20 **Scenario Cost/Unit:** $78.19

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
Seeding Operation, No Till/Grass Drill	960	No Till drill or grass drill for seeding. Includes equipment, power unit and labor costs.	Acre	$21.04	80	$1,683.20
Tillage, Light	945	Includes light disking (tandem) or field cultivator. Includes equipment, power unit and labor costs.	Acre	$10.98	80	$878.40
Materials						
Four Species Mix, Cool Season, Introduced Perennial (2 grasses, 2 legumes)	2319	Cool season, introduced grass and legume mix. Includes material and shipping only.	Acre	$21.41	40	$856.40
One Species, Warm Season, Native Perennial Grass	2322	Native, warm season perennial grass. Includes material and shipping only.	Acre	$70.93	40	$2,837.20

Practice: 512 - Forage and Biomass Planting

Scenario: #8 - Introduced Perennial and Native Grass Mix, foregone income

Scenario Description:

Establish or reseed adapted introduced grasses and at least one native species to improve or maintain livestock/wildlife nutrition and health, extend the length of the grazing season, and provide soil cover to reduce erosion. Used for either conventional or no-till seeding of grasses for pasture, hayland, and wildlife openings. Native grass species, which have a significantly greater cost than introduced species, comprise one third of the grass mixture. This practice may be utilized for organic or regular production. This scenario includes seed, equipment and labor for seedbed prep, tillage, and seeding. The land being seeded was previously cropland with a typical rotation of wheat and corn.

Before Situation:

Land currently being cropped. Resource concerns may include undesireable plant productivity and health, inadequate feed and forage for livestock, soil erosion and soil quality.

After Situation:

Suitable species are established to improve forage quality and quantity and reduce soil erosion on cropland, hayland, pasture, and/or biomass production.

Scenario Feature Measure: Acres of Forage and Biomass Planting

Scenario Unit: Acre

Scenario Typical Size: 80

Scenario Cost: $8,057.60 **Scenario Cost/Unit:** $100.72

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
Seeding Operation, No Till/Grass Drill	960	No Till drill or grass drill for seeding. Includes equipment, power unit and labor costs.	Acre	$21.04	80	$1,683.20
Tillage, Light	945	Includes light disking (tandem) or field cultivator. Includes equipment, power unit and labor costs.	Acre	$10.98	80	$878.40
Foregone Income						
FI, Grazing AUMs	2079	Grazing is the Primary Land Use	AUM	$15.02	120	$1,802.40
Materials						
One Species, Warm Season, Native Perennial Grass	2322	Native, warm season perennial grass. Includes material and shipping only.	Acre	$70.93	40	$2,837.20
Four Species Mix, Cool Season, Introduced Perennial (2 grasses, 2 legumes)	2319	Cool season, introduced grass and legume mix. Includes material and shipping only.	Acre	$21.41	40	$856.40

Practice: 512 - Forage and Biomass Planting

Scenario: #9 - Introduced Perennial Grasses with lime application

Scenario Description:

Establish or reseed adapted perennial introduced grasses to improve or maintain livestock/wildlife nutrition and health, extend the length of the grazing season, and provide soil cover to reduce erosion. Used for either conventional or no-till seeding of perennial introduced grasses for pasture, hayland, and wildlife openings. Includes a lime application. This practice may be utilized for organic or regular production. This scenario includes seed, equipment and labor for seedbed prep, tillage, and seeding.

Before Situation:

Poor or nonexistent stand of grass species. Resource concerns may include undesireable plant productivity and health, inadequate feed and forage for livestock, soil erosion and soil quality.

After Situation:

Suitable species are established to improve forage quality and quantity and reduce soil erosion on cropland, hayland, pasture, and/or biomass production.

Scenario Feature Measure: Acres of Forage and Biomass Planting

Scenario Unit: Acre

Scenario Typical Size: 20

Scenario Cost: $2,659.80 **Scenario Cost/Unit:** $132.99

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
Lime application	953	Lime application performed by ground equipment. Includes equipment, power unit and labor costs.	Acre	$10.00	20	$200.00
Seeding Operation, No Till/Grass Drill	960	No Till drill or grass drill for seeding. Includes equipment, power unit and labor costs.	Acre	$21.04	20	$420.80
Tillage, Light	945	Includes light disking (tandem) or field cultivator. Includes equipment, power unit and labor costs.	Acre	$10.98	20	$219.60
Materials						
One Species, Cool Season, Introduced Perennial Grass	2313	Introduced, cool season perennial grass. Includes material and shipping only.	Acre	$32.72	20	$654.40
Lime, ENM	75	Fertilizer: Limestone Spread on field.	Ton	$58.25	20	$1,165.00

Practice: 512 - Forage and Biomass Planting

Scenario: #10 - Bermuda Grass Establishment, sprigging with fertilizer

Scenario Description:

Sprigging new grasses with sprigging application for the purpose of providing forage, increasing plant diversity, soil quality and fertility, and plant health. This practice may be utilized for organic or regular production. This scenario includes fertilizer, sprigs, equipment and labor for seedbed prep, tillage, sprigging,and spreading.

Before Situation:

Poor or nonexistent stand of grass species. Resource concerns may include undesireable plant productivity and health, inadequate feed and forage for livestock, soil erosion and soil quality.

After Situation:

Suitable species are established to improve forage quality and quantity and reduce soil erosion on cropland, hayland, pasture, and/or biomass production.

Scenario Feature Measure: Acres of Forage and Biomass Planting

Scenario Unit: Acre

Scenario Typical Size: 20

Scenario Cost: $4,090.60 **Scenario Cost/Unit:** $204.53

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
Fertilizer, ground application, dry bulk	950	Dry bulk fertilizer application performed by ground equipment. Includes equipment, power unit and labor costs.	Acre	$6.71	20	$134.20
Tillage, Light	945	Includes light disking (tandem) or field cultivator. Includes equipment, power unit and labor costs.	Acre	$10.98	20	$219.60
Ground sprigging	1101	Includes costs for equipment, power unit and labor.	Acre	$99.15	20	$1,983.00
Materials						
Phosphorus, P2O5	73	Price per pound of P2O5 supplied by Superphosphate. Price is not per pound of total product applied, no conversion is needed.	Pound	$0.66	400	$264.00
One Species, Warm Season, Introduced Perennial Grass (seed or sprigs)	2323	Introduced, warm season perennial grass seed or sprig. Includes material and shipping only.	Acre	$64.09	20	$1,281.80
Nitrogen (N), Anhydrous Ammonia	68	Price per pound of N supplied by Anhydrous Ammonia. Price is not per pound of total product applied, no conversion is needed.	Pound	$0.52	400	$208.00

Practice: 512 - Forage and Biomass Planting

Scenario: #11 - Bermuda Grass Establishment, sprigging with fertilizer and lime

Scenario Description:

Sprigging new grasses with sprigging application for the purpose of providing forage, increasing plant diversity, soil quality and fertility, and plant health. This practice may be utilized for organic or regular production. This scenario includes fertilizer, sprigs, equipment and labor for seedbed prep, tillage, sprigging, and spreading.

Before Situation:

Poor or nonexistent stand of grass species. Resource concerns may include undesireable plant productivity and health, inadequate feed and forage for livestock, soil erosion and soil quality.

After Situation:

Suitable species are established to improve forage quality and quantity and reduce soil erosion on cropland, hayland, pasture, and/or biomass production.

Scenario Feature Measure: Acres of Forage and Biomass Planting

Scenario Unit: Acre

Scenario Typical Size: 20

Scenario Cost: $5,455.60 **Scenario Cost/Unit:** $272.78

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
Lime application	953	Lime application performed by ground equipment. Includes equipment, power unit and labor costs.	Acre	$10.00	20	$200.00
Ground sprigging	1101	Includes costs for equipment, power unit and labor.	Acre	$99.15	20	$1,983.00
Fertilizer, ground application, dry bulk	950	Dry bulk fertilizer application performed by ground equipment. Includes equipment, power unit and labor costs.	Acre	$6.71	20	$134.20
Tillage, Light	945	Includes light disking (tandem) or field cultivator. Includes equipment, power unit and labor costs.	Acre	$10.98	20	$219.60
Materials						
One Species, Warm Season, Introduced Perennial Grass (seed or sprigs)	2323	Introduced, warm season perennial grass seed or sprig. Includes material and shipping only.	Acre	$64.09	20	$1,281.80
Lime, ENM	75	Fertilizer: Limestone Spread on field.	Ton	$58.25	20	$1,165.00
Phosphorus, P2O5	73	Price per pound of P2O5 supplied by Superphosphate. Price is not per pound of total product applied, no conversion is needed.	Pound	$0.66	400	$264.00
Nitrogen (N), Anhydrous Ammonia	68	Price per pound of N supplied by Anhydrous Ammonia. Price is not per pound of total product applied, no conversion is needed.	Pound	$0.52	400	$208.00

Practice: 512 - Forage and Biomass Planting

Scenario: #12 - Introduced Perennial Grasses, legumes on irrigated cropland

Scenario Description:

Establish or reseed adapted perennial introduced grasses and legumes to improve or maintain livestock/wildlife nutrition and health, extend the length of the grazing season, and provide soil cover to reduce erosion. Used for either conventional or no-till seeding of perennial introduced grasses for pasture, hayland, and wildlife openings. This practice may be utilized for organic or regular production. This scenario includes seed, equipment and labor for seedbed prep, tillage, and seeding.

Before Situation:

Irrigated cropland being converted to pasture and/or hay. Resource concerns may include undesireable plant productivity and health, inadequate feed and forage for livestock, soil erosion and soil quality.

After Situation:

Suitable species are established to improve forage quality and quantity and reduce soil erosion on croplan, ,hayland, pasture, and/or biomass production.

Scenario Feature Measure: Acres of Forage and Biomass Planting

Scenario Unit: Acre

Scenario Typical Size: 60

Scenario Cost: $4,490.40 **Scenario Cost/Unit:** $74.84

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
Seeding Operation, No Till/Grass Drill	960	No Till drill or grass drill for seeding. Includes equipment, power unit and labor costs.	Acre	$21.04	60	$1,262.40
Tillage, Light	945	Includes light disking (tandem) or field cultivator. Includes equipment, power unit and labor costs.	Acre	$10.98	60	$658.80
Materials						
Four Species Mix, Cool Season, Introduced Perennial (2 grasses, 2 legumes)	2319	Cool season, introduced grass and legume mix. Includes material and shipping only.	Acre	$21.41	120	$2,569.20

Practice: 512 - Forage and Biomass Planting

Scenario: #13 - Introduced Perennial Grasses, legumes on irrigated cropland, forgone income

Scenario Description:

Establish or reseed adapted perennial introduced grasses and legumes to improve or maintain livestock/wildlife nutrition and health, extend the length of the grazing season, and provide soil cover to reduce erosion. Used for either conventional or no-till seeding of perennial introduced grasses for pasture, hayland, and wildlife openings. This practice may be utilized for organic or regular production. This scenario includes seed, equipment and labor for seedbed prep, tillage, and seeding. The land being seeded was previously cropland with a typical rotation of wheat and corn.

Before Situation:

Irrigated cropland being converted to pasture and/or hay. Resource concerns may include undesireable plant productivity and health, inadequate feed and forage for livestock, soil erosion and soil quality.

After Situation:

Suitable species are established to improve forage quality and quantity and reduce soil erosion on cropland, hayland, pasture, and/or biomass production.

Scenario Feature Measure: Acres of Forage and Biomass Planting

Scenario Unit: Acre

Scenario Typical Size: 60

Scenario Cost: $6,292.80 **Scenario Cost/Unit:** $104.88

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
Seeding Operation, No Till/Grass Drill	960	No Till drill or grass drill for seeding. Includes equipment, power unit and labor costs.	Acre	$21.04	60	$1,262.40
Tillage, Light	945	Includes light disking (tandem) or field cultivator. Includes equipment, power unit and labor costs.	Acre	$10.98	60	$658.80
Foregone Income						
FI, Grazing AUMs	2079	Grazing is the Primary Land Use	AUM	$15.02	120	$1,802.40
Materials						
Four Species Mix, Cool Season, Introduced Perennial (2 grasses, 2 legumes)	2319	Cool season, introduced grass and legume mix. Includes material and shipping only.	Acre	$21.41	120	$2,569.20

Practice: 512 - Forage and Biomass Planting

Scenario: #14 - Organic

Scenario Description:

Establish or reseed adapted organic perennial cool season grasses or cool season grass and legumes mix to improve or maintain livestock/wildlife nutrition and health, extend the length of the grazing season, and provide soil cover to reduce erosion. Used for either conventional or no-till seeding of perennial cool season grasses for pasture, hayland, and wildlife openings. This practice may be utilized for organic or regular production. This scenario includes seed, equipment and labor for seedbed prep, tillage, and seeding.

Before Situation:

Poorly managed/degraded pasture or cropland being converted to pasture and/or hay.

After Situation:

Suitable organic species are established to improve forage quality and quantity and reduce soil erosion on cropland, hayland, pasture, and/or biomass production.

Scenario Feature Measure: Acres of Forage and Biomass Planting

Scenario Unit: Acre

Scenario Typical Size: 80

Scenario Cost: $9,009.60 **Scenario Cost/Unit:** $112.62

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
Seeding Operation, No Till/Grass Drill	960	No Till drill or grass drill for seeding. Includes equipment, power unit and labor costs.	Acre	$21.04	80	$1,683.20
Tillage, Light	945	Includes light disking (tandem) or field cultivator. Includes equipment, power unit and labor costs.	Acre	$10.98	160	$1,756.80
Materials						
Certified Organic, Three Species Mix, Cool Season, Perennial Grasses and Legumes	2340	Certified organic cool season perennial grass and legume mix. Includes material and shipping only.	Acre	$69.62	80	$5,569.60

Practice: 512 - Forage and Biomass Planting

Scenario: #15 - Organic, forgone income

Scenario Description:

Establish or reseed adapted organic perennial cool season grasses or cool season grass and legumes mix to improve or maintain livestock/wildlife nutrition and health, extend the length of the grazing season, and provide soil cover to reduce erosion. Used for either conventional or no-till seeding of perennial cool season grasses for pasture, hayland, and wildlife openings. This practice may be utilized for organic or regular production. This scenario includes seed, equipment and labor for seedbed prep, tillage, and seeding. The land being seeded was previously cropland with a typical rotation of wheat and corn.

Before Situation:

Cropland being converted to pasture and/or hay.

After Situation:

Suitable organic species are established to improve forage quality and quantity and reduce soil erosion on cropland, hayland, pasture, and/or biomass production.

Scenario Feature Measure: Acres of Forage and Biomass Planting

Scenario Unit: Acre

Scenario Typical Size: 80

Scenario Cost: $10,812.00 **Scenario Cost/Unit:** $135.15

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
Tillage, Light	945	Includes light disking (tandem) or field cultivator. Includes equipment, power unit and labor costs.	Acre	$10.98	160	$1,756.80
Seeding Operation, No Till/Grass Drill	960	No Till drill or grass drill for seeding. Includes equipment, power unit and labor costs.	Acre	$21.04	80	$1,683.20
Foregone Income						
FI, Grazing AUMs	2079	Grazing is the Primary Land Use	AUM	$15.02	120	$1,802.40
Materials						
Certified Organic, Three Species Mix, Cool Season, Perennial Grasses and Legumes	2340	Certified organic cool season perennial grass and legume mix. Includes material and shipping only.	Acre	$69.62	80	$5,569.60

Practice: 512 - Forage and Biomass Planting

Scenario: #16 - Interseed Legumes

Scenario Description:

Interseed legumes and/or forbs into an existing grass stand for the purpose of increasing plant diversity, soil quality and fertility, plant health and enhancing the quality of forage. Scenario is appropriate for conventional production. Payment includes seed, seeding and fertility for interseeding establishment.

Before Situation:

Existing grass stand that needs additional species diversity.

After Situation:

A more diverse grass stand provides improved forage quality and availability, and improved soil condition. Payment scenario is based on red and ladino clover interseeded into a 20 acre cool season grass stand. Inputs are based on medium to low existing fertility.

Scenario Feature Measure: Acres of Forage and Biomass Planting

Scenario Unit: Acre

Scenario Typical Size: 20

Scenario Cost: $5,629.00 **Scenario Cost/Unit:** $281.45

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
Fertilizer, ground application, dry bulk	950	Dry bulk fertilizer application performed by ground equipment. Includes equipment, power unit and labor costs.	Acre	$6.71	20	$134.20
Lime application	953	Lime application performed by ground equipment. Includes equipment, power unit and labor costs.	Acre	$10.00	20	$200.00
Seeding Operation, No Till/Grass Drill	960	No Till drill or grass drill for seeding. Includes equipment, power unit and labor costs.	Acre	$21.04	20	$420.80
Materials						
Two Species Mix, Cool Season Annual (1 grass and 1 legume)	2314	Cool season annual grass and legume mix. Includes material and shipping only.	Acre	$54.10	20	$1,082.00
Lime, ENM	75	Fertilizer: Limestone Spread on field.	Ton	$58.25	40	$2,330.00
Potassium, K2O	74	K2O supplied by Muriate Of Potash. Price is not per pound of total product applied, no conversion is needed.	Pound	$0.50	2000	$1,000.00
Phosphorus, P2O5	73	Price per pound of P2O5 supplied by Superphosphate. Price is not per pound of total product applied, no conversion is needed.	Pound	$0.66	700	$462.00